

CATALYST ASSEMBLY

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ABSTRACT OF THE DISCLOSURE

10 A catalyst assembly comprising a substrate,  
nanofilaments which have a nanometer-size diameter and  
are formed on the substrate, and particles which have a  
nanometer-size diameter, at least one of the  
nanofilaments and the particles having a catalytic  
function, is provided to use a catalyst more efficiently  
and to provide a catalytic function more efficiently.  
15 Interstices between the nanofilaments serve as  
distribution channels of a reactive gas, and the reactive  
gas spreads sufficiently not only around the ends of  
nanofilaments but also inside a catalyst assembly. A  
combination of nanofilaments and particles enables  
20 dispersion of a catalyst at a distance of not more than  
about 100 nanometers.